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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,564	04/14/2004	Naoto Yajima	251850US0	4824

22850 7590 08/09/2005

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EXAMINER

FALASCO, LOUIS V

ART UNIT PAPER NUMBER

1773

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/823,564

Applicant(s)

YAJIMA ET AL.

Examiner

Louis Falasco

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION:

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date, ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/14/04</u> . | 6) <input type="checkbox"/> Other: ____. |

PAPERS RECEIVED

The Information Disclosure Statements filed 4/14/04 is acknowledged, and the list of pending applications filed 6/23/04 and 7/14/04 are acknowledged

CLAIMS

The claims are: 1 to 8 all claims are under consideration.

DETAILED ACTION

Statutory Basis

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Rejections

1. Claims 1 to 8 are rejected under 35 U.S.C. 102(a or b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over any of: **Meguro et al** (US 6890646), **Lowery et al** (US 6818298), **Katsutoshi et al** (JP 11-031322) or **Shigeo et al** (JP 09-185822), **Matsuno** (2201-84549).

Any of **Meguro et al**, **Lowery et al**, **Katsutoshi et al**, **Matsuno** and **Shigeo et al** teach the recording media of these claims the concavity concentration in the surface of the magnetic layer would have been inherent due to the same process of layer formation heating and calendering.

Meguro et al, **Lowery et al**, **Katsutoshi et al**, **Matsuno** and **Shigeo et al** teach a magnetic recording medium with a non-magnetic support having a non-magnetic layer and a magnetic layer containing ferromagnetic powder and binder resin, and where the thickness of the magnetic layer is 0.03 to 0.30 μm (see **Meguro et al** col. 17 lns 35-41 and 55-59 **Lowery et al** Fig. 1, and col. 9 lns 39 and 40, **Katsutoshi et al** MEANS paragraph [0024], **Matsuno** Example 1 and **Shigeo et al** Drawings 2, 3, MEANS paragraph [0061], [0063]). While **Meguro et al**, **Lowery et al**, **Katsutoshi et al**, **Matsuno** and **Shigeo et al** all call for a smooth surface (**Meguro et al** – col. 1 lns 46, 47, col. 11 ln 44, col. 16 ln 53, col. 20 ln 39; **Lowery et al** – col. 6 lns 56 - 59, **Katsutoshi et al** - DETAILED DESCRIPTION paragraph [0031], **Matsuno** Table IV and **Shigeo et al** - DETAILED DESCRIPTION paragraph [0007], MEANS [0039], [0062]). None of **Meguro et al**,

Lowery et al, **Katsutoshi et al** and **Shigeo et al** make surface measurements of concavities and **Matsuno** does not make them to 30nm.

In the instant application these surface concavity measurements are alleged as the product of a calendering step which follows non-magnetic layer and magnetic layer formation and heat treatment. It's alleged that the product of the instant claims differs from what has been acknowledged as a known prior art article by not calendering between the non-magnetic layer formation and magnetic layer formation steps. This is clearly evident by contrasting instant 'Examples' 1-5 and with prior art 'Comparative Examples' 1-5. However all **Meguro et al**, **Lowery et al**, **Katsutoshi et al**, **Matsuno** and **Shigeo et al** all teach a recording media product by a method like the instant claimed product - the *disclosed* method calendering after both non-magnetic layer and magnetic layer have been applied to form an extremely smooth surface (**Meguro et al** - see Examples particularly col. 22 lns 49-61 showing a seven stage calendering; **Lowery et al** - see col. 9 lns 12-15; **Katsutoshi et al** - see MEANS paragraph [0030], EXAMPLE paragraph [0043], **Matsuno** paragraph [0010] or **Shigeo et al** see MEANS paragraph [0022], Drawing 4, EXAMPLE paragraph [0094]). This products, because of they are produced by the same process, appear the same or nearly so to that of the claims. The mere measurement of the number of concavities, does not constitute a patentable discovery¹ when the process is the same or nearly so, the product produced would be

¹ "[T]he discovery of a previously unappreciated property of a prior art composition, . . . , does not render the patentably new to the discoverer." *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947.

the same or nearly - *cf* solvent which causing concavities upon evaporation, with the same sequence of steps, i.e., non-magnetic layer formation and magnetic layer formation and drying then calendering (see **Meguro et al** - col. 20 lns 46 - 58; **Lowery et al** - col. 6 lns 20-25, col. 7 lns 44-48, col. 8 lns 37 - 48; **Katsutoshi et al** - MEANS paragraph [0018], DETAILED DESCRIPTION paragraph [0037], **Matsuno** paragraph [0078] and **Shigeo et al** - DETAILED DESCRIPTION paragraph [0019], [0027]) to form a smooth surface².

As regards claims 2 and 6 average depth *Rv6* of the surface of the magnetic layer, as measured by a contact type surface roughness meter being 12 nm or less: though this is not measured in the prior art this would either be inherent or the extent would be a matter of routine optimization or choice of roughness leveling in **Meguro et al** (col. 20 lns 48, 49) **Lowery et al** (col. 6 ln 58), **Katsutoshi et al** (MEANS paragraph [0031]) **Matsuno** paragraphs [Table IV - *Rv* depth] and **Shigeo et al** (DETAILED DESCRIPTION paragraph [0032]). It is clear that all desire a smooth surface, the degree would at most be routine optimization intended for differing heads, to reduce head wear.

As regards claims 3 and 7 average major axis length of the ferromagnetic powder 0.1 μm or less: this has is not alleged to be applicants' invention (instant paragraph [0061]) and is conventional as evident from **Meguro et al** - see **Meguro et al** Table 1 "Major axis length "Ferromagnetic Metal Powder" (col. 7 ln 43 et seq.) and **Matsuno** paragraphs [0033-0034]. The adopting of this powder in magnetic recording media would have at least been obvious as a substitution of

² "A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present." M.P.E.P. 2112 SEC VI explaining *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990)

one a conventional ferromagnetic for another this would be accepted in the art as a mere matter of choice dependent on the degree of magnetic corrosively required by a system or head capacitance.

As regards claim 5 having an upper magnetic layer: an upper magnetic layer is conventional in magnetic recording as amply evident from **Lowery et al** - see Fig. 1; **Katsutoshi et al** see Drawing 3; and **Shigeo et al** - see DETAILED DESCRIPTION paragraph [0010], MEANS [0061] and **Meguro et al** - see col. 16 lns 47-50.

As regards claim 4 and 8 where the medium is *intended* to be used in a recording and reproducing system in which the minimum recording wavelength is 0.6 μm or shorter these have been shown to be conventional by **Meguro et al** col. 18 ln 64, however intended use is given no weight. Since it does not relate to a structural difference in the element (see, e.g., *In re Otto*, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963)). However even if it were to be given weight this has been demonstrated as an obvious convention by **Meguro et al** for adoption in **Lowery et al**, **Katsutoshi et al**, **Matsuno** and **Shigeo et al** and admitted as being a conventional in use a magnetic recording systems paragraph [0016], [0024], [0100].

Secondary Considerations

Applicants' showing alleging unexpected results by Examples 1-5 when compared with Comparative Examples 1-5 in the instant disclosure has not been found convincing since the showing (1) is not commensurate in scope with the claims under consideration and (2) fails to compare the invention with the closest prior art.

(1) *Showing not commensurate in scope with the claims*

The results must cover the claimed range at least such that a skilled artisan could ascertain a trend in the exemplified data that would allow a reasonable extending the probative value of a claimed range. There has been no evidence of a trend that would reasonable lead to the numbers of concavities, 30 nm or greater, being 5/cm² such that the skilled artisan would clearly ascertain a trend in the exemplified data reasonably extending the probative value of the data to what has been claimed³.

The showing of results, illustrated in Table 1 as Examples 1-5 *vs.* Comparative Examples 1-5, is not reasonably commensurate in scope with the claim protection sought. The product is not drawn to a product resulting from the process limited to the steps 'A⇒B⇒C⇒D⇒E⇒F' *vs.* steps 'A⇒D⇒B⇒C⇒D⇒E⇒F' (*cf* instant Table 1).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

³ *In re Clemens*, 622 F.2d 1029, 1036, 206 USPQ 289, 296 (CCPA 1980)

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1-8 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6875495.

The claims 1-25 of U.S. Patent No. 6875495 at least render obvious the claims 1-8. U.S. 6777061 claims the same invention except measuring the number of concavities. The measure of number of concavities claimed is based on a process including calendering only after the application of the magnetic layer. The claims of U.S. 6777061 are based on the disclosure of an article produced by calendering (only) after the application of the magnetic layer - *cf* 'Examples' of U.S. Patent No. 6875495, particularly col. 14 lns 61, 62, with instant 'Examples' 1-5 which applicants demonstrate results in the claimed concavities with a depth of 30 nm or greater in the surface of the upper magnetic layer is 5/cm² of surface area or less.

CONCLUSION

The claims are 1 to 8.

- No claim has been allowed.

- Information Disclosure Statements has been received.

INQUIRES

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louis Falasco, PhD whose telephone number is (571)272-1507. The examiner can normally be reached on M-F 10:30 - 7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol D. Chaney, PhD can be reached at (571)272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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SUPERVISORY PATENT EXAMINER